

IN THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application;

--1. (Currently Amended) An electronic cash system comprising an electronic cash management apparatus, a settlement apparatus, and a management apparatus, for processing a payment to an amount due with previously deposited funds, said electronic cash system characterized in that for processing a payment for an amount due with previously deposited funds, comprising:

~~said an electronic cash management apparatus includes:~~  
~~storage means~~

a virtual bank apparatus having an account management unit for storing information for identifying a user and [[the]] an amount of money utilized by said user based on [the] said previously deposited funds;

~~said settlement apparatus includes:~~

~~settlement instructing means~~

a clearing house apparatus having a clearing unit for instructing a payment institution in the form of a bank or a credit card company to settle;

~~said management a center apparatus includes:~~ having a user device;

a management means unit for managing said information for identifying a user[[,]] and for identifying an account number in the payment institution of the user[[,]] encrypted with a public key of said settlement clearing house apparatus[[;]],

~~balance change instructing means~~ a communication unit for

instructing said electronic cash management apparatus to change the balance of said deposited funds of said user[[],] that is stored in said ~~storage~~ means account management unit of said ~~eleetronic~~ cash management virtual bank apparatus[[],] based on said information for identifying a user managed by said management ~~means~~; and

~~settlement execution~~ instructing ~~means~~ unit and for instructing said ~~settlement~~ instructing ~~means~~ clearing unit of said ~~settlement~~ processing clearing house apparatus to execute a settlement based on the account number in said payment institution managed by said management ~~means~~ unit.

--2. (Currently Amended) [[An]] The electronic cash system according to claim 1, wherein:

~~said electronic cash management~~ virtual bank apparatus, said ~~settlement~~ clearing house apparatus, and said ~~management~~ center apparatus perform predetermined mutual authentication processing before communications therebetween.

--3. (Currently Amended) [[An]] The electronic cash system according to claim 1, wherein:

~~data transmitted between~~ said electronic cash management virtual bank apparatus, ~~said settlement~~ clearing house apparatus and ~~said management~~ center apparatus is encrypted.

--4. and 5. (Cancelled)

--6. (Currently Amended) A method of transferring electronic cash from an information processing apparatus [[2]] in a shop to an information processing apparatus 1 a user device, characterized by:

    said information processing apparatus [[1]] in a shop and said information processing apparatus 2 user device mutually authenticating with each other[[,]] and sharing a temporary key therebetween;

    said information processing apparatus 2 user device encrypting a monetary amount to be transferred, appended with a signature of said information processing apparatus 2 user device, with said temporary key, and transmitting the same monetary amount to said information processing apparatus [[1]] in a shop;

    said information processing apparatus [[1]] in a shop decrypting said monetary amount received thereby with said temporary key[[,]] and adding said monetary amount to [[an]] a monetary amount previously held by said information processing apparatus [[1]] in a shop;

    said information processing apparatus [[1]] in a shop encrypting said monetary amount appended with a signature of said information processing apparatus 1 user device with said temporary key[[,]] and transmitting the same encrypted monetary amount to said information processing apparatus [[2]] in a shop; and

    said information processing apparatus [[2]] in a shop decrypting said encrypted monetary amount received thereby with said temporary key[[,]] and subtracting said monetary amount from

[[an]] the monetary amount previously held by said information processing apparatus [[2]] in a shop.

--7. (Currently Amended) [[An]] The electronic cash transfer method according to claim 6, wherein:

    said information processing apparatus [[2]] in a shop transmits the monetary amount of electronic cash to be transferred together with a device number unique to said information processing apparatus [[2]] in a shop encrypted with a public key of a management apparatus[[],] to said information processing apparatus-1 user device.

--8. (Currently Amended) An electronic cash system comprising:

a user device having an information processing apparatus,  
    a shop, an electronic cash management apparatus  
    a virtual bank,  
    a settlement apparatus clearing house, and  
    a management apparatus, center adapted to processing process  
    a payment to an amount due with previously deposited funds,  
    characterized by:

    said information processing apparatus user device transmitting to said shop[[],] information on an article to be purchased, a number unique to said information processing apparatus encrypted with a public key of said management apparatus center, and transmitting a payment for said article to be purchased [article] encrypted with a public key of said

~~eleetronic cash management apparatus virtual bank;~~

    said shop confirming said information on the article to be purchased[[],] received thereby[[],] and transmitting said number unique to said ~~information processing apparatus~~ user device and a proceed for said article to be purchased article to said management apparatus center;

    said management apparatus center decrypting said encrypted number unique to said ~~information processing apparatus~~, user device received thereby[[],] with a secret key of said management apparatus, center and transmitting said number unique to said ~~information processing apparatus~~ user device and said proceed for the article to be purchased article to said ~~cash management apparatus~~ virtual bank;

    said ~~cash management apparatus~~ virtual bank decrypting said encrypted proceed for the article to be purchased article, received thereby[[],] with a secret key of said ~~cash management apparatus~~, virtual bank and storing the same decrypted proceed together with said number unique to said ~~information processing apparatus~~ user device; and

    after a normal completion of said processing[[],] said ~~information processing apparatus~~ user device subtracting said payment for the article to be purchased article from electronic cash previously held thereby[[],] and recording [[the]] a resulting ~~electrōnic cash difference~~.